

Application No. 10/024,243

REMARKS

Claims 1-10 are pending in this application. By this Amendment, claims 1-8 are amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

The courtesies extended to Applicants' representative by Examiners Johnson and Lee at the interview held October 29 are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below and constitute the record of the interview.

I. The Claims Define Patentable Subject Matter

Claims 1-10 are rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,566,652 to Kato in view of U.S. Patent No. 6,008,490 to Kato and further in view of U.S. Patent No. 5,194,739 to Sato. These rejections are respectfully traversed.

The applied art does not teach, disclose or even suggests preparing in advance a plurality of types of third body gases whose mass numbers are mutually different outside of the ionization chamber, selecting one type of third body gas and introducing it into the ionization chamber, determining whether interference peaks are generated and when an interference peak is generated, selecting another type of third body gas which generates no interference peak, as claimed in claim 1 and similarly claimed in claims 2-8.

The present invention relates to technology of mass spectrometry based on ion attachment. That is, the mass spectrometry of the present invention uses the ion attachment when ionizing the gas to be measured. Ions attached to the gas to be measured are emitted from the ion emitter arranged in the ionization chamber.

In contrast to the disclosure of the applied art, the present invention performs the measurement in a state of not generating interference peaks in the mass measurement data to be obtained by pertinently selecting one of a plurality of types of third body gases or one of a

Application No. 10/024,243

plurality of types of ion emitters. As such, mass numbers of the third body gases are mutually different and mass numbers for metal ions emitted from the ion emitters are mutually different. These features are not taught or suggested in the applied art and clearly distinguishes the claimed invention from the applied art.

Sato merely relates to a technology of mass spectrometry based on a liquid metal ion source. Additionally, Kato relates to another mass spectrometry technology different from the ion attachment mass spectrometry. Further, Kato has no ion emitter in the ion source. The differences discussed with respect to the applied art are very important for understanding the distinguishing features of the present invention.

As discussed above, the applied art does not disclose the features of the claimed invention and therefore, cannot provide the advantages of the claimed invention. Specifically, when detecting a low concentration gas, for example by using the ion attachment mass spectrometry apparatus, the basic idea of the detection is to select another type of third body gas from the plurality of types of third body gases in order to prevent the generation of interference peaks. The applied art does not disclose the features of the claimed invention and therefore, cannot provide the advantages thereof.

Withdrawal of the rejection of the claims under 35 U.S.C. §103 is respectfully requested.


II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Application No. 10/024,243

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Kevin M. McKinley
Registration No. 43,794

JAO:KMM/jfb

Date: November 17, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
--